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Derwent Title: **Magnetic particles for heat-proofing and anti-abrasion - comprise magnetic powder and amino resin with surface bonded with high molecular wt. chain**

Original Title: ☒ **JP06102709A2: MAGNETIC PARTICLE AND ITS PRODUCTION**

Assignee: **MITA IND CO LTD** Standard company  
Other publications from [MITA IND CO LTD \(MTAI\)...](#)

Inventor: **None**

Accession/Update: **1994-161429 / 199420**

IPC Code: **G03G 9/113 ; C08F 2/18 ; C08F 2/44 ; C08F 4/02 ; C08G 12/40 ; C09C 1/24 ; C09C 3/10 ; G03G 9/083 ; G03G 9/087 ;**

Derwent Classes: **A89; G08; P84; S06; A18; A21;**

Manual Codes: **A05-B01**(Aminoplasts general) , **A08-M01**(Adhesion improvers, subbing agents, bonding aids) , **A10-B01**(Addition (co)polymerisation [general]) , **A10-E01**(Chemical modification [general]) , **A12-L05C2**(Electrophotographic toners and carriers) , **A12-S09**(Powders, granules ['semi-finished' materials]) , **G06-G05**(Electrophotographic processing agents and steps - dry toning) , **S06-A04C1**(Developer materials - powder)

Derwent Abstract: ([JP06102709A](#)) The magnetic particles comprise magnetic powder and an amino resin powder with the surface bonded with high molecular chain. Mfg. the magnetic particles comprises treating the amino resin powder with an agent having an acyl halide gp. and functional gp. optionally same as the acyl halide gp., in one molecule, as to introduce the functional gp. onto the surface of the resin powder. The polymerisation starting agent gaining functional gp. to be bonded with the functional gp. on the resin powder, reacted with the resin powder to bind the polymerisation starting agent to the surface of the amino resin powder, and dispersing the monomer phase including the amino resin powder, the magnetic powder and the vinyl monomer into a dispersion medium in drops to polymerise. The surface of the magnetic powder is treated by titanate silane and aluminium coupling agents to provide hydrophobic property.  
**USE/Advantage** - The dispersion property of the amino resin powder and the affinity with the binding resin of the amino resin powder can be improved. The grain size of the magnetic particles is small and the distribution of the grain size of the magnetic particles is narrow. Magnetic particles with high heat-proofing and the anti-abrasion can be obtd.

[Dwg.0/0](#)

Family: PDF Patent Pub. Date Derwent Update Pages Language IPC Code  
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Local appls.: [JP1992000253139](#) Filed:1992-09-22 (92JP-0253139)

Priority Number:

Application Number	Filed	Original Title
JP1992000253139	1992-09-22	MAGNETIC PARTICLE AND ITS PRODUCTION

Extended  
Polymer Index:[Show extended polymer index](#)Polymer  
Multipunch Codes:[Show polymer multipunch codes](#)Polymer Keyterm  
Serial Number:[Show polymer keyterm serial numbers](#)Related  
Accessions:

Accession Number	Type	Derwent Update	Derwent Title
C1994-073927	C		
N1994-127078	N		
2 items found			

Title Terms:

MAGNETIC PARTICLE HEAT PROOF ANTI ABRASION COMPRISE MAGNETIC POWDER AMINO RESIN SURFACE BOND HIGH MOLECULAR WEIGHT CHAIN

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## (54) MAGNETIC PARTICLE AND ITS PRODUCTION

## (57) Abstract:

**PURPOSE:** To obtain magnetic particles having good affinity to a binder resin, excellent heat resistance and wear resistance and suitable as a carrier by incorporating a magnetic powder and an amino resin powder bonded with high polymer chains on the surface.

**CONSTITUTION:** This magnetic powder contains a magnetic powder and an amino resin powder bonded with high polymer chains on its surface. This magnetic powder is produced by treating the amino resin powder with a treating agent to introduce functional groups

into the surface, and then allowing a polymn. initiator having functional groups to be bonded with the functional groups is allowed to react to bond the polymn. initiator to the surface of the amino resin powder. The treating agent has a halogenated acyl group and functional groups same as this halogenated acyl group or different from that in one molecule. A monomer phase containing this amino resin powder, magnetic powder and vinyl monomers is prepared and dispersed as liquid drops in a dispersion medium to effect polymn. The magnetic particles produced by this treating method have a small particle size with a narrow distribution of particle size, excellent heat resistance and wear resistance, and are hard and hardly cracked.

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